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LECTURES.

LACERATION OF THE CERVIX UTERI.

CLINIC OF PROF. T. GAILLARD THOMAS FOR DISEASES OF WOMEN, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

[REPORTED BY P. BRYNBERG PORTER, M. D.]

Laceration of the Cervix, and Chronic Ovaritis. — GENTLEMEN: In the two cases which I shall show you to-day there is probably nothing that you have not seen before during the course, but, nevertheless, I think you will be able to learn something from them. As I have had occasion to remark before, it is of great importance in attending a clinic like this to keep steadily in view the object of that clinic. It is certainly not to show you extraordinary cases, though some would seem to think that this should always be the aim of a clinical teacher. I venture to say that if I were about to perform gastrotomy to-day in a case of extra-uterine pregnancy there would be not even standing room in this amphitheatre. This, rather, should be your object in coming here. When you hear the history and diagnosis of the ordinary cases which come to the clinic, you want to know, first, how to make the diagnosis, and, second, what treatment to pursue yourself in similar cases, which you are likely to meet with constantly in practice. But some one may ask, Cannot we learn this from the text-books? Yes, you can in a general way, but it is impossible for instruction to be given as clearly and forcibly in this manner as by a clinical teacher who properly appreciates his duties and responsibilities. When you get into practice I doubt not that you will from time to time meet with cases which you will recognize as almost identical with some of those which are presented to you here.

The first patient whom I bring before you to-day is Mrs. Mary F., aged thirty-four years, and a native of the United States. She has been married ten years, and has had three children, but no miscarriages. The last child was born five years ago, and since that time she has never been well. Let us suppose, for the moment, that this patient had presented herself at the private office of any one of you. There are two important points in connection with the case which ought to have occurred to you at once on hearing what has now been told you. The

first is that the woman gave birth to three children during the first five years of her married life, and that during the last five years she has been sterile. The second is that the last child was born five years ago, and for five years she has been out of health.

It seems possible, therefore (or rather, I may say, probable), that something occurred at the time of the birth of the third child which has made her, first, an invalid, and, second, a sterile woman ever since.

Now let us question her a little further. Were you perfectly well up to five years ago? "No, not entirely." From what did you suffer? "I have always had more or less weakness even before my marriage." What symptoms have you noticed during the last five years? "Pain low down on the left side, for one thing." Do you feel this all the time? "It always comes on a few days before my monthly sickness." Is it relieved when the flow makes its appearance? "Yes, to some extent." What else do you suffer from? "Constant backache." Anything else? "A discharge all the time." Is it of a bloody character? "No, it is slimy and yellowish." Does this discharge irritate the parts over which it flows? "Yes, a great deal." There is nothing else that you complain of? "No, sir."

The history, you see, is a short one, and if she were a private patient of yours, as we have supposed, having heard it, you would, before going any further, recapitulate in your mind the symptoms of which she has complained, namely, sterility for five years, profuse and constant leucorrhœa, fixed pain in the back, from which she is never free, and pain in the left side, which is not constant, but which comes on before menstruation, while it is sometimes relieved when the flow makes its appearance, and sometimes continues until the latter has ceased.

It would next be your endeavor to relieve these various symptoms; but in order to do this intelligently it would first be necessary for you to make a physical examination, so that you might discover, if possible, the cause or causes of them. I will, therefore, now relate to you what I found on resorting to such physical exploration. In the first place, on inserting the finger into the vagina, the uterus seemed to be perfectly in position, and I became fully satisfied of this fact upon making conjoined manipulation, though the fundus could not be as distinctly felt in this case as in many others on account of the patient's being quite stout. The cervix was ascertained to be lacerated very badly, the lips of the os externum being torn widely apart, so that when I practiced conjoined manipulation the finger in the vagina passed almost up to the os internum. The fingers of the hand on the abdomen were next placed over the left broad ligament, in the region of the ovary, and though I was not able in this case to map out the shape of the latter, the pressure over it caused the patient a very considerable amount of pain. It is by no means always possible tc find the ovary exactly by conjoined manipulation, even when it is more or less inflamed, unless it has slipped down

into Douglas's cul-de-sac, when it can usually be recognized without any difficulty. It is probable, then, that there is chronic ovaritis present in this case, and this would fully account for the dysmenorrhœa noted, which we therefore conclude (as we should indeed imagine from the time when the pain commences) is of the form known as ovarian dysmenorrhœa.

Let us turn our attention next to the symptom leucorrhœa, which is so prominent here. Is there anything found in the vaginal examination which will account for that? Yes, a condition which explains it most amply. The whole surface of the everted lips of the lacerated cervix is one large granular ulceration, so called, in which we find thousands of Nabothian glands irritated to the utmost, and pouring forth a constant and profuse discharge of ichorous matter. Then as to the backache, there is no doubt that it depends on a neuralgic condition of the nerves in and connected with the cervix. There is just as much reason that this neuralgic condition should exist here as that it should about your eye in case you were suffering from ectropion. The neuralgia in the back is reflex, the pain being transmitted in the same manner as that from a carious tooth is often transmitted to the supra-orbital region, giving rise to the most intense agony.

Finally, have we found a cause for the sterility, which has now existed five years? When the ichorous discharge poured out from the inflamed tissue of the cervix (even where there is no laceration present) is examined a short time after a woman has had sexual intercourse, it will be found full of zoösperms, it is true, but they are all dead. Their vitality has been entirely destroyed by this acrid material, and this is all the more likely to occur when there is a bad laceration, and when the discharge causes an irritation of the vulva, and even of the thighs, as in the present instance. Now the explanation given of these various symptoms may not be sufficient for all, but to my mind it is abundantly satisfactory in every respect, accounting for them fully, and therefore I do not think it worth while to look for any other.

The treatment is the next thing that concerns us, and so let us ask ourselves, What can we do to cure the different symptoms? Take the leucorrhœa, for instance. In the first place, it cannot be gotten rid of by treating the present condition of the cervix (on which we have found it to depend) as an inflammatory ulcer. If it could be done in this manner we might make applications of the hot iron, of caustic potassa, or of nitrate of silver. But here there is only one thing to be done, and that is to restore the lacerated cervix as nearly as possible to its normal condition by means of an operation. That, and that alone, will cure the leucorrhœa; and I say this in a double sense, namely, that only, and that of itself, will cure it. As to the vaginitis and vulvitis, which are due entirely to the irritating leucorrhœal discharge,

they may safely be let alone. When the leucorrhœa ceases they will cease too, for when the cause is removed its results will also be done away with.

Furthermore, as to the sterility and the backache: the same cause is the root of all the evils that we have seen. This is one of those curious cases in which we find one traumatic cause giving rise to all the various phenomena noted about it. One thing is left for us to consider, and that is the ovaritis. I should hope that even this, as well, would be cured, or at all events greatly relieved, by the operation of restoring the cervix; for I believe that the irritation in the organ is kept up to a great extent in a reflex manner by the present abnormal condition of the cervix. But if it were not relieved by this means, I should expect that the patient would derive a certain amount of benefit, at least, by the adoption of the measures which I have so frequently mentioned for the relief of ovaritis, such as rest in bed for three or four days preceding the menstrual flow, counter-irritation, electricity, the use of bromide of ammonium, etc.

But, you may ask, would not vaginal injections be of service in getting rid of the leucorrhœa? Certainly they would, but I should never think of depending on them for this purpose. Suppose a dentist had to treat a case of supra-orbital neuralgia depending on a bad tooth in either jaw; would he not first extract the tooth, and thus get rid of the exciting cause? After that he might apply electricity to the irritated nerves, or adopt such other measures as might facilitate a complete cure; and in the same way we might make use of vaginal injections here after having performed the operation of which I have spoken.

Again, it may be asked, Would this woman in reality get well, or is this statement made only for the sake of rendering a clinical lecture more effective? In reply I would say that it is my honest opinion that from the moment the cervix were sewed up our patient would commence to get better, and this improvement would go steadily on until she was completely well again, though of course the cure might be very much facilitated by the adoption of appropriate auxiliary measures in addition to the operation. One great disadvantage about such a clinic as this is that we are not able to perform such operations here, as it would be manifestly impossible to send the patients home after their completion. Neither can we perform them at the houses of these poor patients, for want of satisfactory arrangements, and it is therefore necessary that a case like this should go into a hospital for at least a few weeks; but that involves quite a revolution in the little home circle, since some other person, perhaps a stranger, has to be brought in to look after the children and attend to the various household duties.

Fungoid Proliferation of Lining Membrane of Uterus; Laceration of Cervix and Perinæum. — In the next case we have exactly the same

condition of the cervix (as far as laceration goes), and the patient has also met with another serious accident, which I will describe presently; and yet it is not on account of the symptoms produced by either of these that she now comes to us to seek relief.

Her name is Mrs. Hannah S.; she is a native of Ireland, is forty years of age, has been married twenty years, and has had ten children and one miscarriage.

When did you have the miscarriage? "Three months ago." And how long have you been feeling badly? "Ever since then." Were you quite well up to that time? "Oh, yes, quite well." Have you ever had any particular trouble in your confinements? "No." How was your first confinement? "It was rather easy." The second? "It was easier than the first." And the third? "That was easier still." Then all your confinements were natural and easy? "The last one was not so easy as the others." When did that take place? "Three years ago." Now tell me what you have complained of for the last three months. "A great flooding." Anything else? "I sometimes feel something gather in my throat and then fall down." (This sensation is probably the result of some nervous derangement due to the great loss of blood which the woman has sustained.) Is there anything else that troubles you? "Great weakness all the time." And that is all? "Yes." Are you able to work as you used to? "Oh no, I cannot do any work at all." Why not? "Because if I do it always brings on the flooding worse." Has the flooding been constant for the last three months? "Yes; it has never stopped at all until last week, when the doctor gave me some medicine which stopped it."

Now, gentlemen, having heard the patient's history, look at her face, and you will be convinced that she has told a true story; her extreme pallor indicating that she has indeed lost an immense quantity of blood. As confirmatory evidence of this, I find both her pulse and respiration greatly accelerated. Her last labor, she says, was the most difficult of all that she has had; yet it does not seem to have been followed by the slightest bad symptom, and, according to her own account, she was a perfectly healthy woman up to three months ago. There is but one symptom of which she complains, and that is excessive loss of blood, the weakness which she mentions being, of course, directly attributable to that.

Next, let me tell you the result of the examination which I made in the case. The perinæum was torn through completely to the anus, and the vagina was large and flabby, being in a state of subinvolution. There was a slight rectocele, and the walls of the vagina in general showed some tendency to protrude from the vulva. I do not know in which labor the rupture of the perinæum took place that was followed by the subinvolution of the vagina; but, supposing that it was in the last

(though we have really no right to make such an assumption), for three years she has been going about and attending to all her work (until the last three months) just as well and with as much comfort as though there had never been any accident of the kind. In addition, as I have intimated, there is a laceration of the cervix quite as bad as in the last case. Notwithstanding this laceration, there is no vaginitis or vulvitis present, and she tells me that she has had no leucorrhœa. Indeed, no special symptom can be traced to the laceration, since she has apparently had no trouble whatever until within the last three months. Going on with my examination of the uterus I found that it was in a state of complete subinvolution, yet there has been no symptom referable to this abnormal condition. But three months ago she had an abortion, and we naturally conclude, therefore, that the flooding of which she complains as her only symptom is due in some manner to this accident.

Before proceeding any further, however, let me recapitulate the four conditions which we have found existing here. They are rupture of the perinæum, laceration of the cervix, subinvolution of the vagina, and subinvolution of the uterus; and, strange to say, they have produced, as far as we are able to make out, absolutely no symptoms. Yet how acutely the last patient suffered in consequence of the presence of a single one of them, — laceration of the cervix! These curious anomalies and contradictions occur not infrequently in gynæcological practice. Many of you will at once doubtless recall the two cases of prolapsus uteri which were recently before you. You remember how marked was the suffering of the patient whose uterus was in the first stage of the affection, while the one whose uterus, together with a portion of the rectum and the greater part of the bladder, was entirely outside of the body did not suffer at all, and came here only on account of the inconvenience which the rubbing of the thighs against the uterus hanging between them gave her. The lesson to be learned here is not to look at pathological facts as mere abstractions, but to direct the attention to such pathological conditions as will serve to explain the symptoms complained of in any given case.

Now this woman desires to be cured of the flooding which causes her so much weakness, and prevents her from attending to her work as she used to; and it makes no difference to her whether she has these lacerations and subinvolutions or not, or whether they are gotten rid of by her medical attendant or not, so long as this loss of blood is allowed to continue. When I made my examination here, I said to myself that none of the four conditions before mentioned had anything to do with the metrorrhagia, for the reason that they had existed so long before it commenced. In the other case I advised that the laceration of the cervix should be sewed up, because it was undoubtedly the cause of the patient's symptoms; but here you will be worse off than before if you

perform the operation. You will, perhaps, have made a perfect cervix, but the hæmorrhage will continue the same as ever.

What, then, is the cause of this constant and extensive loss of blood? As I have already intimated to you, I believe that the miscarriage which the patient had three months ago has had something to do with this. When you have such a hæmorrhage as this to deal with, do not talk vaguely about the change of life, the peculiar hyperæmia in the case, etc., but investigate the interior of the uterus, and find out what is really the cause of it. One word of caution here, however, — I should advise you never to introduce a sponge-tent into the uterus unless it seems positively necessary. You will hear some men speak flippantly about sponge-tents, as if there were no danger whatever attending their use, and I used to do so myself years ago, but I have known of too many cases of cellulitis, too many cases of peritonitis, and too many cases of death produced by them ever to do so again. Yet I am still constantly obliged to resort to them in my practice, though I always try to use them with the greatest caution.

As there has been an abortion here there are one or two things that immediately suggest themselves as possibly being the cause of the metrorrhagia. The first is that a portion of the placenta may have been left in the uterus. Quite recently a lady from West Point, in this State, who was suffering from uterine hæmorrhage and had lately had a miscarriage, consulted me at my office. I at once adopted a measure which I will mention to you presently, and as she could not remain then, sent her home until she should be able to stay in town for a few days, in order that I might dilate the cervix and make a thorough investigation of the interior of the uterus. In the mean while, however, she was ordered to take ergot, and as a result of this a small piece of placenta, which had been retained, was expelled by the force of the uterine contractions, after which she had no further hæmorrhage. If there were a retained piece of placenta in the present case it might be necessary to introduce a sponge-tent, but before doing this it would be worth while to find out whether the hæmorrhage might not be due to one condition which is more commonly than any other the cause of both metrorrhagia and menorrhagia, namely, granulations or fungoid growths upon the interior surface of the uterus. With this idea in view, I therefore introduced the little curette, which I have shown you several times before, and soon succeeded, much to my gratification, in drawing out quite a number of these minute polypoid excrescences, which I now present to you for your inspection. This instrument is made of copper wire, and it is so flexible that it is impossible to do any harm with it. It is used every week here at the clinic, and I have yet to learn of the first case in which it has done any injury whatever, while the amount of good that can be accomplished by it is almost in-

calculable. In the case of the lady just alluded to, I employed it when she first came to my office, but I did not succeed in finding any of these little growths, as in the present case. What has been removed from our patient, which I show you on this piece of paper, does not consist of little pieces of the lining membrane of the uterus, as some might suppose, because it would be impossible to dislodge them with such an instrument as this curette. They are fungoid proliferations of that lining membrane. There is no proof, so far as I am aware, that they ever develop into large mucous polypi, though I see no reason why they should not. In the present case I have not the slightest doubt that there are quite enough of them on the interior surface of the uterus to account fully for all the hæmorrhage noted.

If, then, all these granulations are thoroughly removed with the curette (and I propose to do this at once), all flooding will cease, and for the patient all evidence of disease as well. When I ask her if she thinks she would be a perfectly well woman in case the flooding were entirely stopped, she replies that she undoubtedly would, because she does not suffer from anything except the great weakness, which she regards as altogether due to the loss of blood. It may occur to you how much better she would be if the lacerated perinæum and cervix were only restored. Possibly she might, and if she desired it I would certainly perform the operations for her; but this is not what she comes to us for, and as long as these pathological conditions continue to give her as little trouble as they have hitherto done I do not think it is at all advisable to interfere in regard to them.

INCONTINENCE OF URINE IN CHILDREN.[1]

BY ARTHUR KEMBLE, M. D., SALEM, MASS.

We are often called upon to relieve certain affections of the bladder, in which there is no appreciable lesion, and not infrequently disappointed in our attempt to do so.

Under the head of nervous diseases these affections are usually discussed, and include irritability, neuralgia, and paralysis, or conditions marked by increased, diminished, or perverted sensation. In irritability of the bladder we expect to find an exaltation of the nervous sensibility or hyperæsthesia of the mucous membrane, especially at the neck of the organ, by which it becomes intolerant of the presence of the urine, which is voided more frequently than is natural. A variety of this affection is peculiar to young boys and girls, in which the intolerance of the bladder occurs chiefly at night, during sleep. This form of

[1] Read at the regular meeting of the Essex South District Medical Society, February 5, 1878.

irritation, or perhaps I should say incontinence, sometimes disappears spontaneously, while at other times it resists all attempts of the physician to overcome it. When it depends upon local causes, which are curable, quick relief can usually be accorded; and when the incontinence arises from hyperæsthesia of the neck of the bladder or of the entire organ, if of recent occurrence, much hope may be felt that the disease will soon yield to the ordinary remedies. When, however, the morbid sensibility has long continued, it is usually followed by atony of the vesical sphincter. It is to this form of incontinence accompanying or occasioned by the atony of the vesical sphincter rather than to the atony of the whole organ that I shall refer at the present time. Electricity is no new agent in the relief or cure of disease, and is and has been often employed in atony of the whole muscular wall of the bladder, but it is the method of its application rather than the agent itself which I think promises to accomplish so much in the cure of the trouble referred to. In the few patients with whom I have employed it the progress of the relief has been so marked and so rapid that I have ventured to report a few instances of its remarkable benefit.

Case I. Laura M., aged nine years, well nourished, and of good appearance, both parents being healthy, had frequent calls to void her urine during the day, and passed it involuntarily during sleep. This condition had existed for three years, resisting every form of treatment recommended by different physicians, as well as that adopted by myself. Having seen at about this time wonderful relief afforded a lady who had been troubled with this affection for ten years after a short course of electricity under the immediate direction of Dr. Guyon of Paris, I had made, after his design, a set of electrodes, and began the use of electricity on this little unfortunate. After passing the conical electrode into the bladder I withdrew it until it was grasped or resisted by the sphincter muscle. Then having a moistened button of chamois skin just above the pubes I connected it with Gaiffe's pocket battery, worked with bisulphate of mercury. With a moderately feeble current two minutes were allowed to elapse, when I removed the electrode. The little patient was at first somewhat alarmed at my manipulations, but complained of no pain, and said she felt a slightly warm sensation. On the following day the same proceeding was repeated, and the incontinence still remaining on the third day the same application was again given. At my visit on the fourth day the mother was profuse in her thanks, as her child had, for the first time in three years, passed the night without wetting the bed. I again used the battery during this visit, and also on the morning of the fifth day, when, she being then able to control her sphincter by day as well as by night, I concluded to omit treatment for a few days and learn if the improvement would be lasting. After the lapse of four days the patient was found to have

no incontinence during the night, but a slight tendency to the recurrence of the day symptoms. I again applied the electricity every day during the following week, when it was discontinued, and the patient, after an interval of eight weeks, now seems perfectly well.

Case II. Julia T., ten years of age, of healthy parentage, had for two years caused herself much discomfort and her mother much annoyance by the habit of depositing a pool of urine on the carpet several times daily and sleeping in wet sheets at night. I had tried the usual drugs resorted to in such cases, but with no satisfaction to my patient or credit to myself. A few weeks since I commenced the employment of Guyon's electrode. The same course was pursued in this as in the first case, and during the past six weeks no symptom of relapse has shown itself, and the tonicity of the bladder seems perfectly restored.

Case III. John W., twelve years of age, with good surroundings and tenderly cared for, would often be sent home from school with the appearance of having waded through some pond or pool, and every morning would present the bedclothes saturated with urine. This little fellow had troubled me much by refusing to take "nasty stuff," as he was pleased to term what I had flattered myself was a palatable dose, but if he was unwilling to give drugs a fair chance he positively refused to allow the administration of electricity. By coaxing and bribing he at last surrendered, and a small electrode was passed into his bladder. Every morning for the next six days he was subjected to the same treatment, when he could go to school and return home without the customary mishap. The nights, also, allowed him an opportunity of showing under what control his bladder was kept, and during the month of January no indications of the former weakness were observed.

DENTITION: THE SCARIFICATION OF THE GUMS OF INFANTS.

BY G. W. GARLAND, M. D., LAWRENCE, MASS.

There are many pathological conditions which seem intimately associated with physiological processes in the human system at all stages of life, all of which require cautious consideration and careful if not extended observation in order to avoid errors in practical conclusions. This remark will apply to the period of dentition and its dangers, as well as to any other period of life.

When a woman is forty-five or fifty years of age, no matter what her disease may be, if she has any, her physician will be likely, if he does not examine his patient carefully, to say, "This is the turn of life, madam, that you are passing through." So with a child five, six, or seven months old, "It is the coming teeth, madam, that are troubling

your child." The gums are at once scarified, and the physician retires with the comfortable confidence that he has made a correct diagnosis, because he has been taught by the books that the first two lower incisors appear at from the fifth to the seventh month, and that there is "danger" in dentition; and further, the symptoms of his patient are quite like those of some other child he has seen who was cutting its teeth.

It will not be necessary for me to mention the many circumstances and the numerous cases which directed my attention to this subject in my early practice. Some thirty years ago my observations led me to doubt some of the views entertained by authors on the influence of dentition on the health of children, and the necessity for scarifying the gums during that period, — a practice so highly recommended by Dr. Marshall Hall, of London.

The order and time of cutting the teeth are well known: from the fifth to the seventh month the two central lower incisors; from the seventh to the eleventh the four upper incisors, the two central appearing first and so on, till the first sixteen teeth are through the gums, as the books tell us.

It is also well known that most mothers return to their accustomed work, diet, habits of life, etc., long before their children are five months old, and that much the larger number of children are given all kinds of food, a bit from every dish upon the dining-table, not excepting meat pie or boiled ham, and that if a child is "brought up by hand" it is allowed a mixed diet weeks and months before the appearance of teeth. To these irregularities of mothers and nurses are due constitutional irritation, and the usual fretfulness, salivation, etc., — symptoms said to belong to teething, but which appear long before the teeth.

Every physician of experience is able to call to mind cases which have occurred in his practice, and which ended fatally, having all the so-called symptoms of teething at the age of three, four, or five months, such as stomatitis, more usually the aphthous or ulcerative form, enlargement of the submaxillary and lymphatic glands, ulcers of the frænum linguæ, etc., which often disappear in a week or ten days under treatment; febrile symptoms, with increased temperature of skin and rapid pulse. Nervous disturbances are also common, such as broken rest, crying, and spasms of the muscles of the face, or even convulsions of a severer kind. Any or all of the above conditions may precede as well as accompany dentition, and, in my judgment, they have no typical character.

That these symptoms may appear in an aggravated form during the process of dentition I do not attempt to deny, but it is chiefly because the irregularities of the mothers and nurses have existed longer and have had time to develop their baneful influences; and it is for this

cause that I wish to call the attention of the profession to the fact that the so-called teething symptoms, such as diarrhœa, "teething cough," skin eruptions, disturbances of the urinary system, catarrhal ophthalmia, etc., although they may be or are reflex in their origin, are frequently produced by indigestion, by improper diet, by the growth of the brain in childhood, as well before dentition as during that physiological period, and that the diseases of children require great discrimination in order to place upon each symptom its proper value or importance by searching out its absolute cause.

No one principle is more fully and firmly settled in medicine than the fact that pressure promotes absorption in all living bodies, animal and vegetable, and to my mind too much importance has been given by the profession to the effect during dentition of the resistance afforded by that delicate tissue, the gum of an infant, to a tooth advancing so slowly that it requires from five to seven months for an incisor to make its way through that tissue.

I fully believe — and my belief is based upon extensive observation — that the tumefactions seen over uncut teeth are due to injuries done to the gum by biting upon hard substances, a propensity to do which is caused by irritability of the nervous system, which may be and is produced by a great variety of causes, of which teething is one, and only one, as the same propensity to bite and "grind the teeth" is daily met with in children whose teeth have nothing to do with it whatever.

I am here reminded of an article published in the JOURNAL in 1875, written by Dr. Charles E. Buckingham, late professor of obstetrics in Harvard University, on Gum Cutting, in which he said, "I have never seen a case of fatal hæmorrhage from gum-cutting, and never spoke with a person who had seen one." On reading his article I at once wrote him a note telling him that I had seen two such cases, and received a letter of thanks from him.

The two cases were alike as to age, — eight months. The scarifying was done over the first two *upper incisors*. The two lower incisors were through the gum, and in each case the propensity to "grind the teeth" constantly plunged the two lower incisors into the scarified gum above; hence the bleeding. The children were of healthy parents, and were, as far as known, as healthy as children usually are at that age. The swelling of the gum over the upper teeth was caused by the pressure of the lower incisors, and the tumefaction invited the gum lancet. With the exception of "gum cutting" I can most fully indorse the article referred to, as well as many others furnished by Dr. Buckingham for publication.

If, as Dr. Marshall Hall observes, "the process of teething is one of augmented arterial action, and of vascular action generally," it is also one of augmentation of every other action caused by irregularity of

diet, etc.; and it is from many causes that the infantile sufferer labors under general neuralgic pains, colics, vomiting, diarrhœas, coughs, spasms, convulsions, in fact all the symptoms said to be associated with teething. It is the general constitutional nervous action and the nervous irritation which are the real causes of infantile suffering. The above are the natural phenomena, and being constitutional as well as local they present arguments against putting any dependence upon the simple local treatment of cutting the teeth, which fails in affording relief nine times out of ten, even where the gum lancet is used with skillful hand.

By extended observation I am convinced that the most intense suffering, fever, etc., with which infants are afflicted is frequently met where the teeth do not press upon the soft parts at all, and their forms are hardly perceptible upon the gums either by the eye or by the touch of the finger.

We may safely affirm that there is but little danger from dentition so long as the kidneys act freely, and the same remark will hold true in most cerebral affections of children produced by sympathy. Every practitioner of experience can turn his thoughts back to some little patient who caused the deepest solicitude. They will remember that while the sufferer lay in a half-comatose state, turning his head from side to side, they learned with infinite anxiety that he had not passed urine for the last twenty-four hours.

I refer to the above condition for the purpose of saying that in my opinion this moment of intense concern and point of imminent danger may often be avoided by early and repeated stimulation of the kidneys with the nitrate or some other form of potassa, and not by cutting and recutting the gums over undeveloped teeth.

In my judgment scarifying the gums of children is a hobby well-nigh broken down by too many riders, who have had no clear notions of where they were to go, or the physical ability of the nag they had mounted.

RECENT PROGRESS IN MILITARY SURGERY.

BY G. A. OTIS, M. D.

Old John Radcliffe, who bequeathed forty thousand pounds for a library at Oxford, which erected an edifice so magnificent and costly that there was no money left to buy books, evidently loved paradoxes: he kept his own collection of medical literature piled in a window-seat, and said that he could write the whole art of physic on half a sheet of paper. He would, doubtless, could he revive in our day, view with amazement how the field of the collateral sciences has so amplified, and the special branches of the medical art have so multiplied, that the Journal requires a weekly installment of crowded octavo pages to chronicle the recent progress and advances in the several

provinces. But increase of knowledge, we are taught, is like no other growth, but is often accompanied by a shrinkage in its bulk. Although the avenues of medical and surgical inquiry are augmented and multiplied, the methods of research become more simplified and uniform, and in every direction the advances and progress consist in the demolition of former errors and the substitution of practices conformable to more general and uniform principles, quite as much as in the proposition of novelties and complex refinements. "The simplicity of an operation is the measure of its perfection," said the excellent Desault, and, although he designed the three-roller bandage for fractured clavicle, and the straight splint and spiral roller for fractured femur, these were but simplifications of means borrowed from the arsenals of Vidus Vidius and Scultetus,[1] subordinating them to the cardinal principles of coaptation that must ever maintain their ground.

In noticing recent advances in military surgery our attention is naturally first attracted to the discussions on the treatment of wounds that have arisen in connection with the last two colossal struggles, the Franco-German and the Russo-Turkish wars, and especially to the urgent advocacy of methods so diametrically opposed as the open treatment or method of aeration, as it is called, and the antiseptic method or Lister treatment, as it is denominated, in continental Europe.

Open Treatment of Wounds, or Aeration Method, and Lister's Antiseptic Dressing. — A concise and admirable summary of the discussions on these antagonistic methods, with a historical retrospect, was laid before the readers of this journal in July, 1874, by Dr. F. W. Goss, of Roxbury,[2] and hence the more recent researches and statistics on the subjects will be noticed here, and more especially in their relation, to military surgery.

The Surgical Society of Moscow, in November, 1876, organized a commission on the treatment of wounds, with a view of elucidating definitely the conclusions established beyond doubt in the discussions and investigations prosecuted by the Surgical Society during a period of three years, and of presenting a brief and clear exposition of these conclusions to be propagated usefully among practitioners. It was held that the new treatment of wounds, unanimously indorsed by the society, deserved special attention, not only because of the rational and original features of its provisions, but on account of its economical and administrative relations at a juncture when the Russian armies were being mobilized, and the military hospital establishments organized on a vast scale. The commission drew up a report, prefaced by an explanatory memoir on the principles of the method of aeration, as it was designated by the reporter, Dr. S. J. Kostarev, and on its practical applications, and published, in 1877, versions of the report in both the Russian and French language.[3] The report, signed by the president of the commission, Dr. G. Savostitzky, and unanimously indorsed by the society, presented the following conclusions: —

"(1.) The principle of immediate and free contact of the wound with the ambient air,

[1] Vidius (Vidus). Chirurgia è Græco in Latinum conuersa, Vido Vidio Florentino interprete cum nonnullis eiusdem Vidii commentariis. Fol. Lutetiæ Parisiorum, 1544, pp. 444-6. Scultetus (Johannes). Armamentarium chirurgicum bipartium, Francofurti, 1666.

[2] Goss (F. W.), The Dressing of Wounds. Read before the Massachusetts Medical Society, June 2, 1874; in Boston Medical and Surgical Journal, 1874, vol. xci., page 73.

[3] Traitement rationnel des Plaies. Methode d'Aeration. Rapport, etc., Moscow, 1877, 8vo, pp. 42.

or the principle of aeration, is higher, more rational, and more practical than the principle of protecting the hurt surface against the action of the air.

"(2.) The general method of the treatment of wounds, elaborated by the Surgical Society and termed method of aeration, should now be recognized as most rational: for, on the one hand, it reposes upon a knowledge of essential anatomo-physiological properties common to all wounds without exception, as well as on the external agents, to the influence of which our bodies are continually exposed; and, on the other hand, it is entirely confirmed by a multitude of facts and clinical observations.

"(3.) The leading and essential rule of the method of aeration consists in avoiding in every way, in the local treatment, injurious conditions of the exclusion (*non libre accès*) of air, and to place the wound in conditions favorable to the free and immediate contact with the latter (*aeratis*).

"(4.) Consequently every porous body laid on the surface or in the depths of a wound should be regarded as a directly nocuous element.

"(5.) If any extraordinary circumstances render the use of such bodies inevitable, it is of the last necessity to transform them by means of certain procedures into non-porous agents, endowing them in every case with energetic disinfecting properties.

"(6.) Lint and other similar substances, as well as rags of all sorts, ought never to be used in hospitals as deleterious dressing materials.

"(7.) One of the fundamental rules of the treatment of wounds by the aeration method consists in seeking invariably, if anatomical conditions allow, cure by first intention. In all amputation wounds this rule is invariably necessary.

"(8.) In order to attain healing by first intention according to the rules of the aeration method, catgut should be used for the ligation of vessels and metallic sutures for the solid union of the wound.

"(9.) In treating suppurating wounds, or granulating surfaces in general, attention is requisite that granulations should be covered with an adequate layer of secretions, liquid or dried; in the contrary case it is useful to cover the surfaces with some semi-liquid substance (disinfected), or else to form a dry eschar with the aid of liquid caustic.

"(10.) For the treatment of granulating cavities, as abscesses, fistules, etc., the cavity should, with the same purpose conformably to the anatomical conditions, be filled with some mucilaginous liquid, either simple or with the addition of disinfectants.

"(11.) The aeration method surely guarantees wounds against nosocomial infections and septic complications.

"(12.) In banishing dressings, restricting to the last degree suppuration in the patient's ward, and thereby foci putrefaction, the method of aeration promises an essential amelioration of the sanitary conditions of hospitals in their constitution.

"(13.) The reasonableness of the measures, the slight cost (*beau marché*) of the material (*utilage*), the facility of application and supervision, as well as the possible rapidity of the cure of patients, assures for our method of treatment a most brilliant future.

"(14.) Now, in the presence of an impending war, physicians are seen everywhere teaching the care of the sick to all who desire to devote themselves to that sacred task of Christian mercy; it is specially to be desired that the knowledge of the new method, regarding which doubt is no longer possible, either respecting its practical application or the inevitable necessity of minutely adopting it, should be rapidly diffused; more particularly as its general precepts are so simple that it suffices with a few explanatory words to demonstrate to the student in the wards of the wounded treated by this method not to doubt of their knowledge of the new procedures and of all that may be required of them."

This series of conclusions requires, it must be admitted, the elucidation of the two parts of the report furnished by the Moscow commission, — the first on the origin and principles of the aeration method, the second on its practical applications, — and also the prefatory explanatory memoirs; but the digest of the academic debates, and summary of clinical observations and hospital statistics that are alleged to demonstrate irrefragably the principles formulated in the conclusions, yet remain in the Russian language, and, in part, still "in press."

The commission commences by laying down that, in the present state of science, only two methods of treating wounds can be admitted as rational: the method without dressings, and the disinfectant method, that is, the antiseptic method of Lister. It adds that "for amputation wounds the method without dressings is preferable." Further, the commission points out that its treatment of wounds without dressing, or by the aeration method, differs radically from the open treatment of wounds of Dr. Bürow, of Königsberg, and Dr. Rose, of Zurich,[1] inasmuch as the latter formally adopts as the basis of the

[1] In 1859, Dr. A. Bürow, of Königsberg (Ueber die Ursache der häufigen Todesfälle nach Amputationen in Deutsche Klinik, 1859, page 207), urgently recommends that the stumps after amputations be treated without any dressing whatever. He tabulates sixty-two operations treated in this manner: —

15 amputations of thigh.	12 recoveries.	3 fatal.
11 amputations of leg.	11 recoveries.	
20 amputations of arm.	20 recoveries.	
15 amputations of fore-arm.	15 recoveries.	
1 amputation of foot.	1 recovery.	
—	—	
62 amputations.	59 recoveries.	

A fatality of 4.8 per cent. Dr. Bürow applied no dressing, and did not unite the wound until about half an hour after the operation. He contended that the too early closing of the wound and the bandages universally employed after operations were the principal causes of the deplorable results of a large percentage of operations. In 1866, Dr. Bürow (Ueber den nachtheiligen Einfluss der Verbände bei Amputationen, in Deutsche Klinik, 1866, page 217) laments the indifference with which his experience has been treated, and the stubbornness with which one clings to the old with the imbibed prejudices.

In the fall of 1867, Professor Dr. E. Rose made the open-wound treatment a rule in the clinico-surg. division of the county (Kanton) hospital at Zürich. (See Schrämli, Das neue Kantonal-Krankenhaus zu Zürich, Zürich, 1855; and Billroth (Th.), Chirurgische Klinik, Zurich, 1860-67. Berlin, 1869.)

Dr. Goss, in the memoir on the dressing of wounds, read before the Massachusetts Medical Society (see Boston Medical and Surgical Journal, 1875, vol. xci., page 78), has quoted from Dr. Krönlein's work (Die Offene Wundbehandlung, Zurich, 1872) the result of Professor E. Rose's treatment in the Zurich hospital from 1867 to 1871, when the open treatment was pursued systematically, compared with the period from 1860 to 1867, when Professor Th. Billroth had charge of the surgical wards and the wounds were covered in the ordinary way. In modern times Vincenz Kern, the eminent teacher of surgery at Vienna in the earlier years of this century, should be regarded as the leading propounder of the open treatment of wounds. Jung Ken (Ch.) (Bemerkungen auf einer Reise über Wien und München nach Italien im Jahre 1818, in Journal für Chir. und Augenheilkunde, B. i., Berlin, 1820, page 526) relates that in Kern's clinic at Vienna "the highest simplicity in the treatment is the ruling law; . . . charpie and tents are entirely banished from this clinic, and compresses, pledgets, and bandages as far as used in the treatment of wounds;" and, on page 530, gives the following as Kern's motives for this treatment: "The usual modes of dressing after amputation are unsuitable as means to promote healing, and should be rejected for the following reasons: (1) they keep the stump too warm, and accelerate traumatic inflammation and suppuration; (2) they are frequently the cause of parenchymatous bleedings between the wound surfaces, the usual dressings with strongly adhesive plaster acting mechanically and chemically as irritants on the wound surfaces; (3) they hinder the formation of a good fleshy stump. On the same principle Von Kern recommended the treatment of shot wounds during the Napoleonic wars. In his work, Anleitung für Wundärzte zur Einführung einer einfachern, natürlichern, und minder Kostspieligen Methode die Verwundeten zu heilen, Stuttgart, 1810, he exhorts surgeons to treat by this more simple, more natural and less costly method shot wounds that cannot be healed by first intention. In 1826, Vezin (Hermann) (Ueber Behandlung der Amputations stümpfe, in Deutsche Klinik, Nos. 6, 7, 1856, pages 70, 79) relates that with surgeon Bartscher he was led to the open treatment of fresh amputation wounds thirty years ago. For twenty-one years they treated at the city hospital at Osnabrück all cases of amputations, twenty-eight in number, in this manner, with the following favorable results: —

Amputation thigh,	cases 14	Recovered, 12	Fatal, 2
Amputation leg,	cases 6	Recovered, 5	Fatal, 1
Amputation arm,	cases 4	Recovered, 4	
Amputation fore-arm,	cases 2	Recovered, 2	
Amputation foot,	cases 2	Recovered, 2	
	—	—	—
	28	25	3

Neither secondary hæmorrhage nor necrosis of the sawn bone surface was observed in any of these cases. In 1826 Philip von Walther (Ueber die topische Behandlung und über den Verband der eiternden Wunden der Abscesse, Geschwüre, und Fisteln, in Jour. für Chir. und Augenheilkunde, 1826, B. ix., page 178) uses the following strong language: "The surgical bandaging as it exists to-day, and as it appears in our text-books, ornamented with grotesque pictures, is for the greater part to be considered as a monument of human folly and of the most ridiculous absurdities. . . . Wounds, abscesses, ulcers, and fistulæ can be cured by omitting two thirds of what is prescribed by the rules in vogue at the present day."

treatment of wounds the principle of non-intervention, and directly excludes the possibility of healing by first intention.[1] It was these features, according to the commission, that led surgeons to shun the open treatment, and inclined them to accept with sympathy Lister's plan. The commission views with astonishment the phenomenon of two modes of treatment, diametrically opposed in their procedures, yet yielding equally good results, being insufficient to elucidate the enigma. "Some attempts made abroad only demonstrated the impotence of the western intellect to solve the riddle. Evidently no rational treatment was imaginable until contradictory facts were reconciled, and the relations between them and the morbid cause of the complications of wounds were completely understood." The commission claims that it has perfectly explained the relation between the open and the Lister treatment, and pronounces the latter only the counter-proof of the former. It contends that the good results of the open treatment prove indubitably the harmfulness of ordinary dressing, and that Lister proposes a dressing that is not harmful. "If, on the one hand, neither the air nor aerial agents of putrefaction do not in themselves exercise any hurtful influence upon the wound, and become hurtful only in the presence of a bandage, is it not evident that the materials employed by Lister are endowed with the property of rendering the pernicious elements of the bandages inoffensive? The bandages are disinfected; for these disinfection becomes a necessity! Every dressing presents a hurtful element to the surface of the wound; its complete disinfection is with difficulty attained; every thread at the surface or in the depths of the wound is consequently harmful in that it disturbs the favorable relations between the open wound and the ambient air, introducing there the element of the bandage, — an element of isolation, infringing the principle of aeration, the rigid observance of which constitutes the positive side of the treatment and the principal cause of its success. This positive side once discovered in the rigorous application of the principle of aeration, and the principal value of this measure being understood, it was easy to propose to remove all its known disadvantages directly, and boldly to unite wounds, employing only metallic ligatures or catgut, so that not a thread should infringe the principle of aeration. Thenceforward the expulsion of lint and rags from hospitals could easily be predicted."

(*To be concluded.*)

[1] According to our understanding of their teaching, the commission are at fault in confounding the practice of Bürow and Rose in carrying out the open treatment of wounds. Dr. Bürow in treating amputation and other fresh incised wounds, after thorough cleansing of the cut surfaces, waited until oozing had ceased and the surfaces had glazed with lymph, and then united them with sutures, or following precisely the same course as John Bell, Liston, Syme, Stromeyer, Pirogoff, and Mr. Spence, in our day. On the other hand, Professor Rose, as well as Bartscher, Vézin, and Passavant, as reported by Dr. Krönlein (Die offener Wundbehandlung, Zürich, 1872, page 23), abandoned attempts at healing by first intention, trusting to healing by granulation. Dr. Krönlein remarks: "The secret of the open-wound treatment and its excellent successes is therefore not a *specificum;* it is not carbolic acid, not quinine, not air, not water; its secret, for the greater part, lies in the strictly carried out principle not to interfere in the healing process of the wound unless there are urgent reasons therefor, but otherwise to allow nature to have its own sway."

PROCEEDINGS OF THE MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.

C. E. VAUGHAN, M. D., SECRETARY.

THE society held a meeting for medical improvement at Natick, January 16, 1878, the president, DR. HODGDON, in the chair.

Malignant Tumor. — DR. MARCY showed a malignant tumor from the abdominal cavity of a boy of three years and four months. During life the tumor was hard, painless, resembling a fibroid, and was considered probably malignant. The autopsy showed an irregular, nodular mass as large as a fœtal head at full term, and weighing over three pounds. Internally caseous degeneration had begun. The tumor apparently originated behind the kidney, pushed upward behind the peritonæum, compressing the ureters, the rectum, and the other contents of the abdomen. The kidneys were anæmic and sacculated. West speaks of three or four cases of malignant disease of the liver or kidneys in children.

DR. NICHOLS had seen a boy of ten years who had a large encephaloid mass in the chest, compressing the organs to a great degree. He also mentioned a cast, in the museum of the Harvard Medical School, of a malignant mass originating in the orbit of a boy of six years.

DR. HALL spoke of a tumor in the right iliac region of a child of seven years. It was considered by Drs. Calvin Ellis and Samuel Cabot a malignant growth from the kidney. The mass enlarged greatly before death, compressing the abdominal viscera and the lungs.

DR. HODGDON had seen a case in which encephaloid tumor developed in the thigh of a boy ten years of age after violent exercise. The thigh was amputated. Three months later what seemed to be pneumonia appeared. Dr. G. H. Gay saw the case in consultation. There was dull percussion, and much diminished respiratory murmur. The child died, apparently from asphyxia. There seemed to be an extension of the disease from the thigh.

DR. MARCY showed photographs of a German glass-blower before and after removal of a tumor of the nose. The father of the patient died with malignant disease.

Chloral Hydrate. — DR. M. L. BROWN read a paper upon chloral hydrate. It was discovered by Liebig in 1832, but brought into use by Liebreich in 1869. The process of manufacture of chloral was briefly described.

When taken into the system chloral is decomposed by the blood as by other alkaline fluids, and chloroform passes to the ganglionic cells of the brain, then to those of other nervous centres, and is finally eliminated as chloroform. This is the view of Dr. Richardson and others. It causes deep sleep, quiet and natural, with no after-effect. When it is carried farther anæsthesia is produced, with no marked depression. There is no excitement, as in the second stage of anæsthesia, by inhalation. In fatal cases of poisoning by chloral, first, the cerebral functions are affected; second, voluntary motion; third, reflex excitability; fourth, the action of the heart. By a sufficient amount the blood is decomposed.

Chloral may be used in cases where opium is contraindicated, as it does not arrest secretion nor produce congestion of the brain. In fevers and inflammations it reduces the temperature, and retards the deposition of fibrine. In cholera it often succeeds, and is seldom vomited. It may be used hypodermically.

Mr. W., aged thirty-seven, had severe cholera morbus. The usual remedies were tried for twelve hours. The discharges persisting, and collapse threatening, half a drachm of chloral was given. This was vomited, but fifteen grains in half an hour, preceded by the application of mustard to the epigastrium, was followed by relief.

Mr. A., thirty-five, had cholera morbus after exertion and exposure. Homœopathic treatment was fruitless. General cramps and collapse came on. Chloral in dose of forty grains was vomited. After a mustard paste to the epigastrium and a dose of sodium bicarbonate, a half dose was retained, and repeated in an hour. Relief followed, and rapid recovery.

Chloral produces muscular relaxation. It may be used in tetanus, renal colic, strangulated hernia, puerperal convulsions, chorea, etc. Toward the close of the first stage of labor, when pains are sharp and hard to bear, it is useful.

Mrs. C., a large woman, miscarried. The vagina was hot, the os hard and unyielding, and pains were severe. Morphia, extract of belladonna to the os uteri, warm douche, etc., gave no relief. Chloral produced sleep and relaxation of the os, and the fœtus soon came away.

The dose of chloral may vary from one to sixty grains, according to age and weight. A small or medium dose is safest at first. For infants, one grain for each year may be used.

Dr. Hunt doubted the power of chloral to arrest secretion in cholera morbus. It is disagreeable to take, and he preferred opium.

Dr. Wright said that he used ginger as a vehicle, and found no trouble in giving it.

Dr. Marcy mentioned a man who took an ounce by mistake. He could not be aroused for four or five days, but recovered with no ill effects. A strong young woman took a drachm after a restless night, and died within an hour. The autopsy showed no cause.

Dr. Nott gave chloral to a child of five years in four-grain doses for whooping-cough. The cough stopped, and the next morning a rash resembling that of scarlatina appeared. There were no other symptoms. As the rash faded the cough returned. Chloral was used again, and again was followed by the rash.

Dr. Stevens, of North Cambridge, reported a case of chronic chloral poisoning six months after recovery from delirium tremens. There was nervous excitement and debility, fœtid breath, œdema of the face and limbs, and frequent vomiting. Nine drachms per week had been taken.

Dr. Driver spoke of the external use of a chloral lotion (four grains to one ounce) in indolent ulceration of the skin, throat, vagina, etc., from various causes. Comparative experiments in a large English hospital place this treatment among the first as to success.

Dr. J. A. Dow recommended equal parts of gum camphor and chloral for external use in neuralgia.

Dr. Edgerly had seen good effects from the application of a chloral lotion (one drachm to one ounce) to the epigastrium in obstinate vomiting.

Dr. Nichols had used chloral in three cases of puerperal mania. In one case mania became severe a week after labor, with constant excitement and bad general condition. A scruple of chloral was followed in five minutes by sleep, lasting two hours. Six doses were given in the course of the night, with the same result, and very great improvement resulted.

Dr. Z. B. Adams reported a case of epileptiform convulsions. In a child of five years, the attacks, beginning at the age of three years, had become almost incessant. The symptoms were those of true epileptic convulsions, namely, loss of consciousness, strabismus, etc. The attacks ceased entirely after the use of chloral. A recent return of the fits was arrested in the same way.

Thrombus of the Vulva. — Dr. Nichols reported a case of thrombus of the vulva. A poor woman was delivered by Dr. Gould, of Somerville. Two hours after he was recalled, and found a large tumor distending the left labium, which ruptured internally in examination, and discharged a large quantity of blood. In a few hours it was as large as before in spite of compression. Seen eight hours after labor: tumor then very large; pain severe; great exhaustion. Dr. Gould enlarged the opening, cleared out the clots, and plugged the cavity with tow soaked in perchloride of iron. Pain was relieved at once in spite of the size of the tampon, and recovery was rapid.

Diphtheria. — Dr. Wright spoke of a class of cases, of which he has lately seen a great many, in which there is soreness of throat, generally white exudation, more or less firm on the tonsils, and fever. Recovery is generally quick, without any of the alarming symptoms or sequelæ described in the books. Illustrative cases were mentioned by Dr. Wright and others, and a brisk discussion ensued, in which the opinion was strongly expressed by many that such cases should be considered and treated as diphtheria. Dr. Driver thought that diphtheria, as it has spread and increased during past years, has departed from its original regular type, and become protean, taking many forms and modifying other diseases. Safety lies in care and watchfulness.

Dr. Vaughan, to illustrate the danger of trusting to a fancied difference between a "diphtheritic throat" and diphtheria, mentioned an intelligent family in which six cases were treated by domestic remedies for nearly two weeks. The family came under his observation only after the disease in the youngest relapsed, and membrane formed in the larynx. Later, paralysis of the palate and strabismus have occurred in two of the children.

Dr. Edgerly said that in one court in Cambridge in July and August, 1877, there were fifteen cases of diphtheria, some fatal, and not one case of dysentery, which was then prevalent in other parts of the city.

PROCEEDINGS OF THE WORCESTER ASSOCIATION FOR MEDICAL IMPROVEMENT.

GEORGE J. BULL, M. D., SECRETARY.

JANUARY 9, 1878. *Epilepsy.* — DR. PARK read a paper on Some Characteristics of Epilepsy which are of Interest to the General Practitioner. Obscure, nocturnal, dangerous epilepsy, and some of the medico-legal aspects of the disease, were described, and special attention was called to the fact that the administration of drugs which increase the interval between the fits may produce a state of irritability and excitement which will very likely develop into epileptic mania, the most dangerous in its character of all the forms of mental disturbance.

The following recapitulation embraces the points touched upon in the paper: (1.) There is a form of epilepsy termed mental or masked epilepsy, the true nature of which may not be recognized by the general practitioner, the diagnosis being obscured by the fact that it is not always accompanied by the usual symptoms of vertigo or convulsions. (2.) If the physician is called to see a child whose whole disposition has changed, who, from being mild, gentle, pleasant, and agreeable, has become irritable, morose, impulsive, and forgetful, excessively nervous, apt to prevaricate and even steal and secrete articles, oftentimes of no intrinsic value, though before he was particularly truthful and honest, and if, in addition, his bed is sometimes soiled, his pillow discolored, and his tongue sore, he should suspect nocturnal epilepsy, and make such further investigations as may be necessary to confirm the truth of his suspicions. (3.) That an epileptic who has *once* made any really violent demonstration, even though unattended with serious results, is an unsafe person to be at large in the community. (4.) That the administration of bromide of potassium, or any drug which interrupts the natural recurrence of the epileptic convulsions in confirmed epilepsy, frequently produces psychological manifestations which may be attended with results dangerous to the patient and to others.

DR. QUINBY remarked that in many cases of undoubted epilepsy convulsions are not present, the only distinctive mark being loss of consciousness. It is agreed that this loss of consciousness may be of so brief a duration as to fail to be recognized as such by the patient himself, or to attract the attention of those about him, while some authorities go so far even as to deny that complete unconsciousness is necessary to the epileptic state. What is especially worthy of note is the fact that the intensity of the nervous manifestations bears no direct relation to the degree of mental disturbance which may follow an epileptic attack. Frequent attacks of vertigo, loss of consciousness, irritability, failure of memory, change in disposition, and loss of moral sense are some of the symptoms which should lead us to suspect epilepsy. The post-mortem appearances in the brains of epileptics do not differ from those in the chronic insane generally, and it is altogether probable that any morbid change taking place at the base of the brain may produce epilepsy. Of the cases seen in general practice a small number are undoubtedly curable, while those found in hospitals for the insane are generally cases of long standing, which

have already been subjected to the most varied treatment, and which we can hardly hope, therefore, to benefit by further medication. Two years ago we tried ergot upon all our epileptics, giving the remedy in drachm doses three times a day for a period of three months, and then discontinuing it and giving a placebo for the next three months. This had no apparent effect in lessening the number or frequency of their fits.

Dr. Clarke said that the observation of the reader in regard to these dangerous effects of the bromide of potassium were new to him, but he was glad to be made aware of them. In his experience, which might be considered large for a physician in general practice, no such results had been noticed. He believed the remedy to be of more value in the treatment of epilepsy than all others together. It is beneficial in nearly all cases, and in some it effects a permanent cure, or what at present seems so. He instanced several cases in support of this statement.

Dr. Joseph Sargent said that in speaking of epilepsy we should exclude the epileptiform convulsions of infancy, which oftenest cease to recur when the period of infancy is passed. Also, he said, it is difficult to refer epilepsy to any morbid anatomy, and least of all to any deformity of the sella turcica, to which it was suggested it might be referred in the first course of lectures on anatomy which he heard, many years ago. How can we explain a disease whose intervals are often so long by a condition which can scarcely continue? Dr. Sargent reported cases where, after repeated epileptic attacks with short intervals between the ages of sixteen and twenty, in male and in female patients, there had been an interval of several years and then a recurrence in very aggravated form, fit succeeding fit, with no return of consciousness for several days, sometimes with fatal result. Dr. Sargent reported three cases of this kind, two of which were fatal. Of the fatal cases one was a woman who was exempt from the age of seventeen to the age of twenty-four, and then from the age of twenty-four to that of thirty-four, the period of exemption not being occupied by treatment. The other fatal case was that of a young man, also untreated, in whom the interval was ten years. He said that Dr. Woodward the elder used to rely very much upon the use of stramonium and nitrate of silver in this disease, and we are all in the habit of seeing in our streets a gentleman of accomplishments whose skin is everywhere bronzed after the use of nitrate of silver, which was not administered under Dr. Woodward's direction. This person was a confirmed epileptic, and now has had no attack for more than thirty years. Dr. Chandler used to think that stramonium suspended the disease. Of late years we all use the bromides, and we seem to procure much more relief than we had been accustomed to witness.

Dr. Eastman said: In lunatic hospitals we rarely see epilepsy cured, for the reason that the curable stage is passed before the hospital is resorted to. Many cases, however, improve on account of regularity of life and suitable diet as well as of proper medical treatment. Improper diet is sometimes the original cause of epilepsy, and very often the immediate cause of the fits and the greatest obstacle to their cure. Epilepsy in young persons, where the diet and habits can be controlled, is often cured if properly treated before the disease has produced effects which seem to be, as it were, secondary foci of the disorder. There is no specific for this disease. Almost everything has been

tried and claimed to be the panacea. The truth is, almost every drug capable of causing a profound impression on the nervous system will in certain cases greatly diminish, for a time at least, the frequency of the paroxysms. Epileptics constitute a most dangerous class of inmates of lunatic hospitals. Their delusions are often of personal violence, which they seek to avoid or revenge. Serious violence may be done by an epileptic in a momentary unconsciousness, whence arise some of the most interesting medico-legal cases. Every confirmed epileptic is liable to become dangerous suddenly.

Dr. Woodward said that the curability of the disease decreased in proportion to the length of time it had existed in the patient. We now look upon it as curable in a certain number of recent cases. Not many years ago an epileptic was abandoned to his fate, but now, even if he cannot be cured, he can at least be greatly relieved by judicious treatment. Dr. Woodward's father had had a very large experience in the disease. He used stramonium, with nitrate of silver and nux vomica. In certain cases he got good results from digitalis with stramonium. Dr. Woodward adhered largely to his father's old prescriptions, though he had faith in the bromides and used them constantly. Any treatment which postpones the attacks or renders them lighter is valuable, even if it does not cure. He had known the disease to recover by the spontaneous effort of nature in a few cases. He had great faith in surgical interference when the disease followed blows upon the head. Remarkable results obtained by the use of opium alone, a remedy which was entirely interdicted in the disease but a short time since, had lately been published. From his own experience he had a growing confidence in it.

Dr. Wheeler said: Until facts take their place, the best method we have of working toward the truth is by means of theories. In this connection and in view of the unsatisfactory state of the pathology of epilepsy which we have heard explained, it seems to me that the "nerve-storm" theory is worthy of study. Even if untrue, it suggests many interesting analogies, and its study is instructive. The idea is that a class of neurotic diseases (epilepsy may be taken as an example) are brought on through a vicious, nervous diathesis, under which there is at intervals an accumulation in certain limited tracts of a morbid amount of nerve force and unhealthy increase of nerve tension, which a slight cause seems to disperse in a violent way in the form of a nerve storm. The form of the discharge depends upon the territory in which the morbid accumulation has taken place. In one individual it is the medulla and the discharge is epilepsy, while in another it is the thalamus opticus and the discharge is migraine; in others it will take the form of mania, neuralgia, or hysteria, catalepsy, gout, or asthma. These accumulations and discharges are held to take place in accordance with a general law, valid in health as well as disease. Instances in health are sneezing, weeping, hunger, the sexual appetite. Moreover, health and disease are as indefinitely separated here as elsewhere; any of these physiological phenomena may become morbidly excessive. One form of dispersion may take the place of another form, whether physiological or morbid, as when fright displaces hiccough or migraine, epilepsy or gout takes the place of migraine, or a fit of laughter acts vicariously for an epileptic fit. This may be done artificially, as where vomiting is made to take the place of an asthmatic explosion.

MEDICAL EDUCATION IN THE UNITED STATES.[1]

THIS report was prepared by the author at the request of the Department of the Interior as a part of the work of the Bureau of Education in preparation for the Centennial Exhibition. In facts and language it is, of course, not unlike the centennial address upon medical education delivered by him before the International Medical Congress at Philadelphia.

Dr. Davis gives a brief sketch in the beginning of the condition of medical matters in America previous to 1776, at which time there were three or four thousand practitioners and two medical colleges in the thirteen States. The history of the following thirty years is then given, embracing a particular account of the foundation of the seven medical colleges organized during that period, of which but five survived, constituting the medical departments of the University of Pennsylvania, of Harvard University, of Dartmouth College, of the University of Maryland, and of the College of Physicians and Surgeons of New York. Medical education in New England began with a course of lectures on anatomy by Dr. Warren in 1772; and in the following year Harvard College organized a regular faculty consisting of John Warren, M. D., professor of anatomy and surgery; Aaron Dexter, M. D., professor of chemistry and materia medica; and Benjamin Waterhouse, M. D., professor of theory and practice of medicine. In 1810 the medical department was removed from Cambridge to Boston. Instruction in all these schools at this early period was limited to short courses of didactic lectures, and was supplemented by a system of private pupilage or apprenticeship, after the custom then prevalent in Great Britain, and the degrees of both bachelor and doctor of medicine were conferred according to the time previously spent in study. A degree, however, was by no means universally taken by physicians, and many entered upon the practice of medicine without other instruction than that received during their apprenticeship to a preceptor.

Dr. Davis proceeds next to give a somewhat detailed account of the medical schools established from 1810 up to the present time, and of the methods of instruction followed in them. From these statistics we learn that between 1810 and 1840 twenty-six new medical colleges were added to those above mentioned, and that since 1840 the additional number of forty-seven has been created. Of this total list of eighty founded during the century sixteen have been discontinued, leaving sixty-four in operation at the present time, and an estimated number of medical students in attendance of six thousand six hundred and fifty. This ratio, the author concludes, is not out of proportion to the ratio of increase of our population.

After this historical sketch of our medical institutions, Dr. Davis discusses the character and system of the education they have furnished. With the freest liberty of creating new schools throughout the country, with the right to confer degrees which have the effect of a license to practice medicine, he thinks that it requires but a moderate degree of familiarity with the motives that govern

[1] *Contributions to the History of Medical Education and Medical Institutions in the United States of America*, 1776–1876. By N. S. DAVIS, A. M., M. D. Washington: Government Printing Office. 1877.

human actions to see that medical education will shape itself to the natural tendency of the student to go where he can be made a doctor with the least expenditure of time and money. "The medical college in a country village, remote from all facilities for clinical instruction in hospital or dispensary, and but scantily supplied with subjects for dissection, can issue to its graduates just as large a diploma, couched in just as unintelligible Latin, and having much the same influence with the people as the school in the metropolitan city, whose students can have the largest facilities for clinical and practical study." With this multiplication of medical schools the former relative positions of private pupilage and college instruction have been entirely reversed, the former now "consisting in little more than the registry of the student's name in the doctor's office, permission to read the books of his library or not, as he chooses, and the giving of a certificate of time of study for the student to take to the medical college where he expects to graduate. . . . The latter, to have maintained its adaptation to the needs of the profession, should not only have increased the number of its professors and its means for communicating knowledge, but also the length of its annual courses, and the division or gradation of its classes in accordance with their period of study, and in proportion to the greatly enlarged field of medical knowledge to be acquired. Such would have been to-day the grand result worked out by our experiment of self-originating and self-sustaining medical schools, had they been restricted to their only appropriate functions as institutions for imparting medical instruction and advancing medical science, instead of being hampered and perverted from their natural course by assuming the office of licensing institutions."

The remedies for the general present deplorable state of medical education in the country Dr. Davis does not make very clear. That the system of uniting the work of teaching and the power of licensing to practice is a gross evil there can be no question, but it is in a small measure only the cause of the trouble, because it is practically inoperative for harm in some parts of the country at least. Harvard University, for instance, very properly may confer the degree of M. D., but she has no licensing power whatever, nor can any of her graduates receive permission to practice in Massachusetts from the only recognized licensing body, the State Medical Society, without passing an examination before a board of examiners elected by the profession at large. There is no doubt, were we living in a monarchy, that these matters might be better regulated under the control of a central power, but any attempt by our own general government to administer such affairs would necessarily result in the adoption of a uniform standard of requirements far below the level of that already enforced by the best of our licensing bodies representing the profession directly. The same would be true of any scheme of regulating the standard of medical education through a congress of representatives of medical teachers or state medical societies. Such a standard, to be generally accepted, would necessarily be below that already voluntarily adopted by a few of the medical colleges.

The medical department of Harvard University, for example, does not admit to its school any student who has not passed before its own or some recognized collegiate faculty an examination in languages (including English) and physics.

Its students, almost without exception, find it to their advantage, well-nigh a necessity, to spend three full academic years of nine months each in attendance upon the regular graded course of study, under a corps of thirty-six instructors; and the examination papers, upon which its degree is based, are yearly published and distributed over the country, so that the profession everywhere may know just what the Harvard standard is. With any less high the university would not be satisfied. There are but two or three other schools in the country which profess to teach under the same system, or to maintain as lofty a standard. These certainly would not lower themselves again to any such common level as the schools *en masse* would rise to.

It is to the influence of such schools as Harvard that we must look for the gradual elevation of medical education in America. It will not be long before some one of the large schools of New York will be emboldened by her success (as has already happened in Philadelphia) to furnish a properly graded and thorough medical education, to select its pupils, and to publish the examination papers which express the value of its degree. When thus the powerful schools in the large cities have come to see that their own prosperity and the highest interests of the profession will be alike advanced by adopting such a course, there will be little need to seek for other remedies for the evils Dr. Davis so clearly exhibits.

FARQUHARSON'S THERAPEUTICS.[1]

THE numerous works on therapeutics which have appeared during the last few years would tend to show that there is a demand for more reliable information as to the action of remedies than has previously been furnished in what were considered standard books. No one is bold enough to assert that either clinical experience or experimental study on the lower animals has produced a certain knowledge of the action of drugs, but every fair-minded student will admit that by the comparison of these two methods of observation we are upon the threshold which leads to a more accurate means of exhibiting a large number of remedies, and that with this power we can combat many symptoms of disease apparently depending on definite pathological lesions. What modern skeptic will dare to dispute the fact that ergot will arrest hæmorrhage caused by passively dilated capillaries, or what enthusiast will claim that with ergot he can arrest any and all hæmorrhages? Is not the answer to this double question to be met by stating that ergot, when absorbed into the circulation, contracts the lumen of the smaller blood-vessels, and thus retards the flow of blood resulting from a passive dilatation of these blood-vessels? The explanation of this theory is given by Dr. Farquharson (page 202) thus: "This is believed to be due to a primary action of the ergot on their [the smaller blood-vessels'] muscular walls rather than to the intervention of the vaso-motor system." If the reader will compare this with the

[1] *A Guide to Therapeutics.* By ROBERT FARQUHARSON, M. D. Enlarged and adapted to the United States Pharmacopœia by FRANK WOODBURY, M. D. Philadelphia: Henry C. Lea. 1877.

physiological action of the same drug which Wahltuck described in 1868, justice would demand the acknowledgment that our present information is far in advance of the previous decade.

It is as important for the modern practitioner of medicine to acquaint himself with the known physiological action of remedies as with the pathology of diseases, if he desires to take the lead among rival practitioners. Teachers in therapeutics must explain the action of medicines by physiological and clinical observations. Of necessity, those remedies which have only an empirical reputation cannot thus be discussed, nor can we expect that Dr. Farquharson can treat of the action of damiana or the viburnum prunifolium.

In view of this demand for more accurate information we look with pleasure on the arrangement of Dr. Farquharson's manual, and commend his bold and concise method of stating the physiological and therapeutical action of those drugs (officinal or unofficinal) which he has seen fit to speak of. For illustration we refer our readers to the article on Nitrite of Amyl (page 92); there the action on the nervous system and the application to clinical experience is as graphic as it is interesting. The advantage of comparing side by side, on the same page, the therapeutical and physiological action of the same drug is made more apparent (page 128) by stating the physiological action of belladonna "on the unstriped muscular fibres surrounding the arterioles," and the therapeutical application of this drug "in those cases of chronic inflammation of the spine leading to paralysis, where it acts well by contracting the vessels and diminishing the supply of blood to the affected part." Again, the explanation of the mode of using this same drug in "incontinence of urine in children."

One more illustration will show the clearness of Dr. Farquharson's style (page 282): "On the circulation it [phosphorus] acts in the first place as a stimulant; the pulse rises and gains in fullness, but not firmness, etc. . . . In large doses, however, it depresses to a dangerous degree the heart's action. Phosphorus may be given with decided benefit as a stimulant in *typhoid conditions* where great feebleness exists," etc.

Though exception might be taken to the fact that our present knowledge of the physiological action of drugs is very incomplete, a careful study of this Guide will show that Dr. Farquharson is well posted in the modern researches of experimenters and clinical instructors. Thus the busy practitioner can read in a short space an excellent compendium of the results of physiological study, and at the same time compare his bedside experience with both the therapeutical and the physiological action of remedies.

Dr. Woodbury, in his adaptation of the preparations of the British to the United States Pharmacopœia, has apparently done his work faithfully. Some of the doses are perhaps not exactly in accordance with the views of every practitioner; for instance, the dose of laudanum (opii tinctura) and opii tinctura deodorata is given as thirteen minims. This is rather a smaller dose than that usually given to an adult, but is supposed to be the equivalent of a grain of opium. The method of stating the various preparations and their doses, each on a separate line, is very convenient.

RANVIER'S HISTOLOGY.[1]

THE fourth fascicule of Professor L. Ranvier's Traité technique d'Histologie has been published. This excellent manual has been most favorably received everywhere, and from its trustworthiness and the novel plan upon which it is written it will certainly be an invaluable guide to students and an important aid to investigators. Professor Ranvier gives minute directions for preparing the various tissues and organs, and then describes exactly what may be learned from each preparation, thus rendering his work much more than a Traité technique. The illustrations are numerous, and are engraved on copper. They have a delicate beauty which is impossible with a wood-cut, and indeed they are above praise. The volume is to be completed in seven or eight fascicules of one hundred and sixty pages each. Its great value and the moderate price (twenty-five francs) should secure it a very large circulation. C. S. M.

LÉON VOILLEMIER.

THIS distinguished French surgeon died recently, after a long and successful career. Appointed *interne* of the Paris hospitals in 1837, he took his degree in 1842, became assistant professor (*agrége*) in 1844, and shortly afterwards surgeon of the hospitals.

Early in his career he published a number of papers, which have left their mark and are still quoted in treatises of surgery. The first essay, published in 1839, was upon dislocation of the wrist. In 1841 came his important paper on fractures of the lower end of the radius. Other contributions appeared on the following subjects: Strangulated Hernia, Extra-Uterine Pregnancy, Lameness (1844), Cysts of the Neck (1851). His later publications comprised a volume on Clinical Surgery (1860), a paper on the Treatment of Urethro-Perineal Fistula (1873), and the first volume of an elaborate treatise on Diseases of the Urinary Passages, published in 1868. This latter work, however, remains uncompleted.

Voillemier's name will long be remembered and quoted in connection with fracture of the lower end of the radius, which he was the first to describe accurately, but which is often improperly called "Colles's fracture." His dissections showed the existence in such cases of a transverse fracture, situated from a half to three quarters of an inch above the articular surface, with penetration of the upper into the lower fragment, the latter being tilted backwards. He also found in one case a stellate fracture dividing the lower end of the radius into several fragments, as previously described by Dupuytren. This injury, together with the fracture of the styloid process of the ulna, found by Voillemier in some of his cases, had occurred in two specimens lately shown by Bulteau at the Paris Anatomical Society, and would therefore seem not to be of rare occurrence.

Voillemier is also well known as having devised an instrument for the treat-

[1] *Traité technique d'Histologie.* Par L. RANVIER, Professeur au Collége de France. Paris: chez F. Savy. Fascicules I.–IV. 1875–1877.

ment of urethral stricture, called by him the *divulsor*, in order to distinguish it from Holt's dilator, which it very closely resembles. Voillemier's practice differed in one respect from that of Holt, inasmuch as he was in the habit of tying in an elastic catheter for twenty-four to forty-eight hours after the use of his divulsor. He attached considerable importance to this procedure, which he thought preventive of urethral fever. Holt, on the other hand, never ties in any catheter after splitting a strictured urethra with his dilator.

Voillemier was a member of several learned societies, including the Société de Chirurgie and the Académie de Médecine. He was for some years at the head of an important surgical service at the Hôtel Dieu, which he had to give up a few years before his death, having reached the age of superannuation. This circumstance deprived him of his principal field of observation, and caused his death to be less noticed and regretted than would have been the case had he been taken away during the more active period of his career. His disappearance is, however, a loss to French surgery.

MEDICAL NOTES.

— The graduates of 1878, of those schools whose term closes in March, are as follows: University of Pennsylvania, 127; Jefferson Medical College, 203; University of the City of New York, 153; Bellevue Hospital Medical College, 130; College of Physicians and Surgeons, New York, 109; Buffalo Medical College, 42; Medical College of Ohio, 102; Cincinnati Medical College, 33; Miami Medical College, Cincinnati, 51; Louisville Hospital Medical College, 17; University of Louisville, 71; Louisville Medical College, 70; Missouri Medical College, 102; St. Louis Medical College, 49; Medical College of Virginia, 12; College of Physicians and Surgeons, Indianapolis, 41; Indiana Medical College, 29.

— The *Medical Examiner* thinks that "in view of the fatal termination of Victor Emmanuel's illness, the fact that he was bled even to a small extent is much to be regretted, as it is to be feared that it will increase the prejudice against blood-letting, which now so largely prevails. . . . It is probable that many lives would be saved every year if practitioners had the courage to oppose the deep-rooted prejudices against phlebotomy, which now so sadly cripple their action." These remarks relate especially to the abstraction of blood in engorgement of the lungs, which lesion formed a portion of the late king's illness.

— A London correspondent of the *Clinic* says, "I don't understand why a man occupying the position and commanding the practice which Lister enjoyed in Edinburgh could go to London to lecture to empty benches. Here he has about twenty hearers, while in Edinburgh the seats would not contain the students who flocked to hear him. I am told that his beds in King's College Hospital are but little more than half filled, and it is a fact that he had a patient transported from the Edinburgh Infirmary to illustrate some feature of his antiseptic method. This was a case of lumbar or psoas abscess, which one now opens freely under antiseptics with good results. . . . . Dr. Keith told me he had done his last twenty-four cases of ovariotomy under the Lister method, with but two losses."

— The *Archives de Med. novale* (No. 2, 1878) publishes a report, by Dr. Bourel-Roncière, of twenty-five operations which were facilitated by insufflation of air. A trocar is passed into the skin in the vicinity of the part requiring an operation; the canula is connected with a syringe, by means of which air is slowly injected, until the surrounding cellular tissue is distended, the object being to separate and isolate the various layers and superficial tissues, the operation and the search for vessels being thus made easier. In order to prevent too extensive infiltration of air, pressure must be made near the part. Among the operations thus performed were ten for strangulated hernia, nine for removal of various tumors, two excisions of the maxilla, and ligation of large blood-vessels. We find this translation in the *Medical Times and Gazette.*

— The Fothergillian gold medal of the Medical Society of London for 1878 has been awarded to Dr. J. Milner Fothergill. The subject of his paper was The Antagonism of Therapeutic Agents. Dr. Julius Althaus received the silver medal for the best paper read before the society at its last session. Subject, Disease of the Anterior Cornua of the Cord.

— The *Medical Examiner* alludes to the success of Dr. Leidesdorf in the treatment of epilepsy with *small* doses of atropia, on the principle that small doses diminish the action of the reflex nerve centres. Recent and old cases recovered under this treatment.

— The distinguished physiologist, Dr. Ernst H. Weber, died January 26th, in Leipsic. He originated the doctrine of the mechanism of propulsion of the blood. His brother Edward, equally celebrated, created the theory of inhibition of the nervous system. Hence the term, "hemmungsnerven system," now in general use among the Germans. Volkmann and others formerly used the term, "regulatorisches nerven system."

— In reference to a medical test law recently passed in Illinois, a correspondent of the *Medical and Surgical Reporter* says, "The law is not perfect, but will be a stepping-stone to something more. Over six hundred non-qualified have left the State. Every doctor in the State is reading up. Very few students are entering our offices. Western colleges, as a result of the law, have been filled with students. Surrounding States will pass similar laws in self-defense."

— Germany has a university for every two million inhabitants.

— Dr. Nathan Bozeman has been appointed to the staff of the Women's Hospital, New York. He takes the place of the late Dr. Peaslee. Drs. Emmet, Barker, and Thomas are the other members of the staff.

— "No professional man, — no physician bound by the ethics of the profession," — says the *Hospital Gazette*, "has the right to recognize such an institution as the New York College of Veterinary Surgeons. Therefore Dr. Hammond has certainly brought no honor to the profession by the course he pursued in officiating at the commencement of this institution."

— M. Darsouval showed the Paris Society of Biology that when an induced current of electricity can no longer excite the sciatic nerve of a frog it will still cause a vibration of the telephone, thus proving that the latter is a more sensitive electric reagent than nerve tissue.

— Lister has been made an honorary member of the Royal Society of Physicians of Vienna. Charcot, Marion Sims, Hutchinson, Pacini, and Sommer have been elected corresponding members of the same society.

— In *Virchow's Archiv*, Bd. 72, 1878, Dr. F. Marchand, of Halle, reports the very rare case of tuberculosis of the muscles of the body of a man who had been twenty-four years a prisoner. Lungs, kidneys, and spleen presented an eruption of fresh miliary tubercles. A translation of the article may be found in the *Clinic* for March 30th.

— Mr. Liebreich has resigned his position of ophthalmic surgeon and lecturer on ophthalmic surgery at St. Thomas's Hospital, London, but at the urgent request of treasurer, staff, and governors he has accepted the appointment of consulting ophthalmic surgeon to the hospital. Liebreich takes his vacation during the winter months in order to enjoy a more genial climate. He is therefore absent during the active session of the school, and for this reason he resigned his offices.

— "We hear," says the *Medical Examiner*, "that M. Pierre Picard is to succeed Claude Bernard in the chair of physiology at the College of France. Picard, at present a professor at Lyons, was for a long time Bernard's assistant, and has published valuable researches on the constitution of the blood corpuscles."

— The same journal also states that the scientific committee for medical affairs has recently reported to the German minister of education on the effect of gaslight upon the eyes. The conclusions were that gaslight does not injure the eyes, provided they are not exposed to direct rays. Opaque metallic shades are condemned, and shades of translucent glass-porcelain recommended. The head should not be too near the light, and the flame should not flicker. When the eyes are irritable a dark-blue glass will be found useful.

PROFESSOR FRANCIS GURNEY SMITH.

Mr. Editor, — We are reluctantly compelled to record the death of another prominent member of our profession in Philadelphia, whose loss will be widely felt. Francis Gurney Smith, Jr., M. D., emeritus professor of the institutes of medicine in the University of Pennsylvania, died on the 6th of April, 1878, at his home in this city, in the sixty-first year of his age. For several years he had suffered from renal disease, and two years ago his rapidly failing health warned him to relinquish his active duties, and to seek to reëstablish his physical powers by a prolonged visit to Europe. He returned home a few months since, apparently greatly benefited by his stay, although still unable to resume the arduous duties of his former position. He took great pleasure in seeing his friend, Dr. Brown-Séquard, during his recent stay in this city, and in driving with him in the park. He appeared to be in his usual health on the morning of the day on which he died, but then was suddenly attacked by apoplexy and paralysis, which rapidly proved fatal. He enjoyed the confidence of a large circle of friends both in the profession and outside of its ranks, and was universally respected for his social and scientific attainments.

Professor F. Gurney Smith was a native of Philadelphia, where he received his education, graduating successively from the department of arts and of medicine at the University of Pennsylvania. Upon receiving his diploma in 1840, he became resident physician in the department for the insane of the Pennsylvania Hospital, and nineteen years later, in 1859, he was elected one of the attending physicians of the medical department of the same institution, which position he filled for six years. He was also a member of the first medical staff of the Episcopal Hospital of Philadelphia. He was unusually successful in his private practice, and early obtained a prominent position in the profession in his native city. He was a member of the American Medical Association, and, it will be remembered, was one of the vice-presidents of the meeting held at Washington in 1870. He also belonged to the Philadelphia College of Physicians, the Pathological Society, Academy of Natural Sciences, American Philosophical Society, and several other scientific bodies. He was active in the formation of the Philadelphia Obstetrical Society, of which he was the first presiding officer. During the war he joined the army medical staff, and was connected with a military hospital.

In 1852 Dr. Smith, having already some experience and reputation as a lecturer on biology, was elected professor of physiology in the now defunct Pennsylvania Medical College, in which position he continued for seven years. In 1863 he was chosen to succeed the late Dr. Samuel Jackson as professor of the institutes of medicine in the medical department of the University of Pennsylvania. On account of his failing health he was obliged to resign this chair in 1877, when the board of trustees unanimously elected him emeritus professor of that branch. During this active term of service he established for the first time in the history of the institution a physiological laboratory to aid him in demonstrating his lectures. He was assisted in many of his early vivisectional experiments by his assistant and former student, Dr. J. Aitken Meigs, who succeeded him as professor of physiology in the Pennsylvania Medical College, and who, since 1868, has filled the corresponding chair in the Jefferson Medical College.

Professor Smith is known to readers of medical literature as one of the authors of the Compendium of Medicine (Neill and Smith's), and as American editor of Carpenter's Physiology. He also edited Marshall's Physiology, and translated, with the authors' sanction, Barth and Rogers' Manual of Auscultation and Percussion. For almost a decade he was one of the editors of the *Philadelphia Medical Examiner*. Among his fugitive contributions to medical literature may be mentioned the results of a series of experiments upon the physiology of digestion in the case of the celebrated Alexis St. Martin. (Experiments upon Digestion. Philadelphia, 1856.)

Dr. Washington L. Atlee has been for some time confined to his house with an abdominal growth. We hope that some relief may be afforded him, and that his sickness may be less serious than has been reported.

Dr. John Neill, of the University of Pennsylvania, is also in a precarious state of health, and is said to be unable to leave his room. W.

PHILADELPHIA, *April* 13, 1878.

A CASE OF BELLADONNA POISONING.

MR. EDITOR, — A case of accidental poisoning by belladonna occurred here lately. It seems to me valuable for publication, because a large quantity of the drug was absorbed without fatal result (and it is the opinion of the attending physicians that the result was not decided by the treatment), and because the details can be given with accuracy.

The patient, who is also the writer, is a man twenty-eight years of age, of good physical development, and free from organic disease. When twelve years of age, at a boarding-school in Brattleboro, Vermont, he was dangerously ill with cerebro-spinal meningitis, followed by a slow convalescence. His father, Dr. Luther Parks, reported the case at the time in the JOURNAL. In the fall of 1871 he began his medical studies in Philadelphia, and remained there as student and practitioner five years. In that time his health was often depressed by overwork, and he had four distinct illnesses, — an attack of measles, two carbuncles, and an attack of nervous prostration after mental strain. Although the last two summers have been passed in the singularly restful climate of Mattapoisett, his nervous system was in an impaired state at the time of his late accident.

Friday afternoon, January 25th, he was suffering from pain in the joints of his lower extremities and vesical irritability, due to exposure to a cold rainstorm. For the relief of the latter trouble he called soon after dinner at a drug store for some fluid extract of buchu, and a bottle of fluid was given him by the proprietor labeled "Fluid Extract of Buchu." A few minutes after two o'clock he measured carefully one drachm of the drug, and, having filled the medicine glass to the brim with water, swallowed the whole contents without tasting it. A few minutes past four he measured a drachm and a quarter of the fluid, added water, and drank as before. In the interval between the two draughts he was occupied in reading, writing, and in other ways, and, though he felt strangely, the sensation did not demand particular attention. Immediately after the second draught he walked out, and noticed at once dimness of vision, dryness of mouth and throat, constriction of fauces, a feeling as if the tongue were enormously swollen, dullness of intellect, and weakness of knees, with want of muscular coördination. Having walked a half mile by himself, he joined a young lady and escorted her to her residence, and thence went to his room, — in all a distance of fully a mile and a half. Upon parting from the lady he stopped in the street and conversed with a medical friend. That gentleman has since told him that he noticed that something was wrong about him. Having reached his room and built a fire, at six o'clock he became alarmed at his symptoms, called his landlord to his assistance, and told him he thought he had been poisoned. The landlord acted with prompt decision and good judgment. The patient was running up and down the room, drinking large draughts of water, upsetting pitchers, and in danger of falling. His landlord in a tone of authority ordered him to bed, and was promptly obeyed, and he was held there throughout the night, in spite of his extreme restlessness. Medical aid was summoned at once. It was noted at this time that the tongue was very red and the secretion of urine increased.

There were hallucinations like those of delirium tremens, disagreeable, vanishing instantly, and immediately after their departure the patient was aware of their unreality. The yellow corpse of a tall man, shrouded in white, tried to share the patient's bed with him, and the unwelcome visitor was promptly ejected. A crimson serpent came from the foot of the bed, with the design of fastening upon the patient's neck. Rising to his knees, he with his fist drove the serpent's head deep into the bed, and instantly the apparition vanished. He asked his attendant (for he was practically *blind*) if the blanket had a red border to account for the hallucination. There were large sea-turtles about the room, such as he had seen in the Pacific. After an hour or two of sleep in the early morning the delusions became agreeable, and continued all day. While riding out in the afternoon with a medical friend, trees became personified to him as people in fantastic costumes. There was no diplopia at any time. In the morning there was severe pain in both renal regions, which he partially relieved by pressure with his fists, the elbows planted in the bed, and the body raised in that way quite off the mattress. There was some strangury the next evening.

Thus far this report is given from the patient's memory and note-book. With regard to the time when assistance was first summoned, further details are given derived from medical and other attendants. The delirium was "most busy." Picking things from the bedclothes, rising in bed to gather things from the pictures and walls, muttering to himself, he had little time to notice those about him. He answered short questions correctly. When the first physician arrived, shortly before eight o'clock, he found him with flushed face, pulse as full and strong as usual, and very rapid, but the wrist could not be held long enough to count it. Delirium tremens was considered; also his having been drugged. There was no one about who knew the patient's habits, nor where he had been during the day. The physician was sure that the effect of the narcotic had reached its height, and that there was no danger to life. Bromide of potassium and morphia were ordered, but the patient, though aware that he was ill, resisted treatment, and but little of the bromide was swallowed. One half grain of the morphia in whisky was forcibly administered. Shortly before nine o'clock a second physician called. He was sure that the mischief had been caused by atropia, in spite of the patient's declaration to the contrary. The lighted candle held before the widely dilated pupils caused pain. The proper treatment having been pursued, he left no directions. The next morning he tested the patient's vision by passing his forefinger close before his eyes. It was not seen.

In the morning the druggist called, and confessed that he had given belladonna for buchu.

There was no vomiting. Urine escaped during sleep, but otherwise there was neither incontinence nor retention.

A specimen of the urine passed between Saturday and Sunday mornings was tested by the writer. After prolonged boiling and addition of nitric acid fully ten per cent. of albumen was deposited after standing twelve hours. Fifty cc. of urine deposited 1 cc. of sediment (two per cent.). Under the microscope this was found to be squamous epithelium, with a few crystals (modified

form) of triple phosphate. The urine, and also the pupils, became normal in less than a week. The face remained flushed for days.

Great mental and physical prostration, sleeplessness, and pain in the left kidney followed the accident, and are still present at this date. The pain was relieved by a Turkish bath in San Francisco not long ago, but has returned to a slight degree.

The fluid extract came from Tilden & Co., New Lebanon and New York city, N. Y. It is being tested by competent chemists, and any valuable results will be sent to the JOURNAL.

This report is published by the kind permission of the attending physicians, to whom it has been submitted for approval. Your obedient servant,

EDWARD L. PARKS.

SANTA BARBARA, CAL., *February* 20, 1878.

COMPARATIVE MORTALITY-RATES.

	Estimated Population, July 1, 1878.	Deaths during week ending April 13, 1878.	Annual Death-Rates per 1000 living.		
			For the Week.	For the Year 1877.	Mean of ten Years, '68-77.
New York.	1,093,171	509	24.21	24.32	28.71
Philadelphia.	876,118	304	18.04	18.80	21.54
Brooklyn.	549,438	190	17.98	21.51	25.50
Chicago.	460,000	106	11.98	17.83	22.39
Boston.	375,476	121	16.76	20.10	24.34
Providence.	100,000	36	18.72	18.81	19.20
Lowell.	55,798	18	16.77	19.09	22.50
Worcester.	54,937	18	17.05	14.07	22.30
Cambridge.	53,547	15	14.56	18.69	20.83
Fall River.	53,207	29	28.35	21.35	24.96
Lynn.	35,528	19	27.82	20.42	19.67
Springfield.	33,981	3	4.59	16.04	19.77
Salem.	27,140	8	15.33	20.28	21.15

TAPE-WORM.

MR. EDITOR, — A notice is at the present time being pretty extensively circulated among physicians, in which a number of names are given as references, by a person who takes this means of advertising a small and quackish pamphlet on tape-worm. The names are used (so far as I have been able to ascertain) without a shadow of authority. The pamphlet contains nothing worth reading, except, perhaps, the formula which its author uses to effect the removal of the parasite. Here it is: A purge at night. Three or five grains of calomel in the morning. Immediately afterwards four or eight ounces of an infusion of pomegranate root (prepared by pouring a quart of cold water over half a pound of the root and boiling down to a pint) is given, and repeated in two or three hours if not effective. Should the worm be only partially expelled, an enema of salt and water is used. Nausea is prevented by sucking a lemon. Fasting is prescribed from the beginning of the treatment until after the expulsion of the parasite.

F. G. M.

Mr. Editor, — The Journal for April 11, 1878, contains a note signed E. H. Pettengill, in which he speaks of a prescription given in the Journal for March 21st, and says: "This prescription is the same as given in Niemeyer's Text-Book of Practical Medicine, and has been used by the physicians in this vicinity for quite a number of years," etc. Now I do not understand how our Vermont brethren make their pills. The ferri sulph. and potass. carb. pura when rubbed up deliquesce, and if mucil. tragacanthi be added a bottle is needed. The prescription should, in my way of thinking, read "pulv." instead of "mucil." tragacanthi. I am, etc., G. W. Copeland.

Maverick Square, East Boston.

Gynæcological Society of Boston. — The next regular meeting of the society will be held at the Evans House, on the first Thursday in May, at three o'clock P. M. The following papers are expected: —

Drs. Gilman Kimball and E. Cutter, Fifty Cases of Uterine Fibroids treated by Electrolysis.

Charcot's Position (that of a general practitioner) respecting the Relation of the Ovary to certain grave Forms of Hysteria; the Phenomena of Nervous Epidemics, etc., by H. M. Field, M. D., Professor of Therapeutics, Dartmouth Medical College.

The profession are invited to be present after the business meeting. Doors open at four o'clock. Henry M. Field, *Secretary.*

Suffolk District Medical Society. — Annual meeting, April 27th, at seven and a half o'clock. Reports of committees. Election of officers. The following papers and cases will be read: —

Dr. J. P. Ordway, Successful Treatment of Fistula in Ano by Local Applications, with exhibition of patients.

Dr. William Read, a Case of Tetanus. Diphtheria. Knot in the Umbilical Cord.

Dr. E. W. Cushing, Sun Spots and Epidemics.

Tea, etc., at 9 o'clock.

American Medical Association. — The twenty-ninth annual session of the association will be held in Buffalo, N. Y., on Tuesday, Wednesday, Thursday, and Friday, June 4th, 5th, 6th, and 7th, commencing on Tuesday at eleven A. M. We give a list of the officers of the various sections: Practice of Medicine, Materia Medica, and Physiology: Dr. A. L. Loomis, New York, chairman; Dr. J. H. Etheridge, Chicago, Ill., secretary. Committee appointed to report to this section: On Clinical and Meteorological Records: Dr. N. S. Davis, Illinois, chairman. Obstetrics and Diseases of Women and Children: Dr. E. W. Jenks, Detroit, Mich., chairman; Dr. H. O. Marcy, Cambridge, Mass., secretary. Surgery and Anatomy: Dr. Henry H. Smith, Philadelphia, Pa., chairman; Dr. E. T. Easley, Little Rock, Ark., secretary. Medical Jurisprudence, Chemistry, and Psychology: Dr. Walter Kempster, Oshkosh, Wis., chairman; Dr. E. A. Hildreth, Wheeling, W. Va., secretary. State Medicine and Public Hygiene: Dr. J. L. Cabell, University of Virginia, chairman; Dr. E. J. Marsh, Paterson, N. J., secretary. The following committees are expected to report: On Prize Essays: Dr. E. M. Moore, Buffalo, N. Y., chairman. On Necrology: Dr. J. M. Toner, Washington, D. C., chairman. On Catalogue of National Library: Dr. H. C. Wood, Pa., chairman. On Recommendations in President Bowditch's Address: Dr. N. S. Davis, Illinois, chairman.

Secretaries of medical societies are requested to forward at once a list of their delegates to Dr. Atkinson, of Philadelphia.

Books and Pamphlets Received. — The Vest-Pocket Anatomist. By C. Henri Leonard, A. M., M. D. Second Enlarged Edition. Detroit. 1878.

Report of the Resident Physician of Brigham Hall, a Hospital for the Insane, for the Year 1877. Canandaigua, N. Y. 1878.

Addresses delivered at the Fifty-Sixth Annual Commencement of the National Medical College (Medical Department of the Columbian University). By J. C. Welling, LL. D., Professor William Lee, M. D., and C. T. Lewis, M. D. Washington. 1878.

Annual Announcement of Lectures at Toland Hall, Medical Department of the University of California. San Francisco. 1878.

Lithotomy. A Tabulated Statement of Cases, etc. By David Prince, M. D., Jacksonville, Ill. (Reprinted from the St. Louis Medical and Surgical Journal, April, 1878.)